

**§ 148.205 Ammonium nitrate and ammonium nitrate fertilizers.**

(a) This section applies to the stowage and transportation in bulk of ammonium nitrate and the following fertilizers composed of uniform, non-segregating mixtures containing ammonium nitrate:

(1) Ammonium nitrate containing added organic matter that is chemically inert towards the ammonium nitrate; containing at least 90 percent ammonium nitrate and a maximum of 0.2 percent of combustible material (including organic material calculated as carbon); or containing less than 90 percent but more than 70 percent of ammonium nitrate and a maximum of 0.4 percent combustible material;

(2) Ammonium nitrate with calcium carbonate and/or dolomite, containing more than 80 percent but less than 90 percent of ammonium nitrate and a maximum of 0.4 percent of total combustible material;

(3) Ammonium nitrate with ammonium sulfate containing more than 45 percent but a maximum of 70 percent of ammonium nitrate and containing a maximum of 0.4 percent of combustible material; and

(4) Nitrogen phosphate or nitrogen/potash type fertilizers or complete nitrogen/phosphate/potash type fertilizers containing more than 70 percent but less than 90 percent of ammonium nitrate and a maximum of 0.4 percent of combustible material.

(b) No material covered by this section may be transported in bulk unless it demonstrates resistance to detonation when tested by one of the following methods:

(1) Appendix 2, Section 5, of the IMSBC Code (incorporated by reference, see § 148.8);

(2) Test series 1 and 2 of the Class 1 (explosive) in the UN Manual of Tests and Criteria, Part I (incorporated by reference, see § 148.8); or

(3) An equivalent test satisfactory to the Administration of the country of shipment.

(c) Before loading a material covered by this section—

(1) The shipper must give the master of the vessel written certification that the material has met the test requirements of paragraph (b) of this section;

(2) The cargo hold must be inspected for cleanliness and free from readily combustible materials;

(3) Each cargo hatch must be weathertight as defined in § 42.13–10 of this chapter;

(4) The temperature of the material must be less than 55 °C (131 °F); and

(5) Each fuel tank under a cargo hold where the material is stowed must be pressure tested before loading to ensure that there is no leakage of manholes or piping systems leading through the cargo hold.

(d) Bunkering or transferring of fuel to or from the vessel may not be performed during cargo loading and unloading operations involving a material covered by this section.

(e) When a material covered by this section is transported on a cargo vessel—

(1) No other material may be stowed in the same hold with that material;

(2) In addition to the segregation requirements in § 148.140 of this part, the material must be separated by a complete cargo compartment or hold from readily combustible materials, chlorates, chlorides, chlorites, hypochlorites, nitrites, permanganates, and fibrous materials; and

(3) The bulkhead between a cargo hold containing a material covered by this section and the engine room must be insulated to “A-60” class division or an equivalent arrangement to the satisfaction of the cognizant Coast Guard Captain of the Port or the Administration of the country of shipment.

**§ 148.220 Ammonium nitrate-phosphate fertilizers.**

(a) This section applies to the stowage and transportation of uniform, nonsegregating mixtures of nitrogen/phosphate or nitrogen/potash type fertilizers, or complete fertilizers of nitrogen/phosphate/potash type containing a maximum of 70 percent of ammonium nitrate and containing a maximum of 0.4 percent total added combustible material or containing a maximum of 45 percent ammonium nitrate with unrestricted combustible material.

(b) A fertilizer mixture described in paragraph (a) of this section is exempt if—

## § 148.225

(1) When tested in accordance with the trough test prescribed in Appendix 2, Section 4, of the IMSBC Code or in the UN Manual of Tests and Criteria, Part III, Subsection 38.2 (incorporated by reference, see §148.8), it is found to be free from the risk of self-sustaining decomposition.

(2) [Reserved]

(c) No fertilizer covered by this section may be transported in bulk if, when tested in accordance with the trough test prescribed in Appendix 2, Section 4, of the IMSBC Code or in the UN Manual of Tests and Criteria, Part III, Subsection 38.2 (incorporated by reference, see §148.8), it has a self-sustaining decomposition rate that is greater than 0.25 meters per hour, or is liable to self-heat sufficient to initiate decomposition.

(d) Fertilizers covered by this section must be stowed away from all sources of heat, and out of direct contact with a metal engine compartment boundary.

(e) Bunkering or transferring of fuel may not be performed during loading and unloading of fertilizer covered by this section.

(f) Fertilizer covered by this section must be segregated as prescribed in §§148.140 and 148.220(d) of this part.

## § 148.225 Calcined pyrites (pyritic ash, fly ash).

(a) This part does not apply to the shipment of calcined pyrites that are the residual ash of oil or coal fired power stations.

(b) This section applies to the stowage and transportation of calcined pyrites that are the residual product of sulfuric acid production or elemental metal recovery operations.

(c) Before loading calcined pyrites covered by this section—

(1) The cargo space must be as clean and dry as practical;

(2) The calcined pyrites must be dry; and

(3) Precautions must be taken to prevent the penetration of calcined pyrites into other cargo spaces, bilges, wells, and ceiling boards.

(d) After calcined pyrites covered by this section have been unloaded from a cargo space, the cargo space must be thoroughly cleaned. Cargo residues and sweepings must be disposed of as pre-

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scribed in 33 CFR parts 151.55 through 151.77.

## § 148.227 Calcium nitrate fertilizers.

This part does not apply to commercial grades of calcium nitrate fertilizers consisting mainly of a double salt (calcium nitrate and ammonium nitrate) and containing a maximum of 15.5 percent nitrogen and at least 12 percent of water.

## § 148.230 Calcium oxide (lime, unslaked).

(a) When transported by barge, unslaked lime (calcium oxide) must be carried in an unmanned, all steel, double-hulled barge equipped with weathertight hatches or covers. The barge must not carry any other cargo while unslaked lime is on board.

(b) The shipping paper requirements in §148.60 of this part and the dangerous cargo manifest requirements in §148.70 of this part do not apply to the transportation of unslaked lime under paragraph (a) of this section.

## § 148.235 Castor beans.

(a) This part applies only to the stowage and transportation of whole castor beans. Castor meal, castor pomace, and castor flakes may not be shipped in bulk.

(b) Persons handling castor beans must wear dust masks and goggles.

(c) Care must be taken to prevent castor bean dust from entering accommodation, control, or service spaces during cargo transfer operations.

## § 148.240 Coal.

(a) The electrical equipment in cargo holds carrying coal must meet the requirements of Subpart 111.105 of this chapter or an equivalent standard approved by the administration of the vessel's flag state.

(b) Before coal is loaded in a cargo hold, the bilges must be as clean and dry as practical. The hold must also be free of any readily combustible material, including the residue of previous cargoes if other than coal.

(c) The master of each vessel carrying coal must ensure that—

(1) All openings to the cargo hold, except for unloading gates on self-unloading vessels, are sealed before loading